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EXAMINER

ZAMANI, ALI A

ART UNIT

PAPER NUMBER

2674

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No. 09/294,341	Applicant(s) Hiroaki Masaaki
Examiner Ali Zamani	Art Unit 2674

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on Sep 5, 2001

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle* 1035 C.D. 11; 453 O.G. 213.

### Disposition of Claims

4)  Claim(s) 1-10, 12-17, 19-23, 25-35, 37, and 38 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-10, 12-17, 19-23, 25-35, 37, and 38 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

15)  Notice of References Cited (PTO-892) 18)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16)  Notice of Draftsperson's Patent Drawing Review (PTO-948) 19)  Notice of Informal Patent Application (PTO-152)

17)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20)  Other: \_\_\_\_\_

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## **DETAILED ACTION**

The indicated allowability of claims 4-6, 10-12, 17-19, 23-25, 29-31 and 35-37 has been withdraw. Rejections of newly cited reference is below.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 1-10, 12-17, 19-23, 25-35 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki (US Pat. No. 6,011,533) In view of Uchino (US Pat. No. 6,040,816).
3. In regard to claims 1-10, 12-17, 19-23, 25-35 and 37-38, Aoki discloses an image display device comprising: a liquid crystal panel (100) having a switching element for every pixel electrode (114), a scanning line driving circuit (102) for driving scanning lines of liquid crystal panel (100), a signal line driving circuit (104) for driving signal lines of liquid crystal panel (100), a control circuit (20) for controlling driving liquid crystal panel (100), a video processing circuit (col. 1, lines 17-29), a producing circuit (32) for producing a phase difference in a second signal with respect to phase of a first signal which is inputted to signal driving circuit (104) or to scanning circuit line driving circuit (102) (Fig 7A, col. 11, lines 50-60), Aoki also disclose the shift registers (120 to 150) and show the input signal DX when the first clock signal CLX1 is

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high, similarly the second, slave clocked inverter (121c) inverts and outputs an output signal of the inverter (121b) when the first inverted clock signal/CLX1 is high and in a similar manner, clock signals CLX2 to CLX4 rises later than the preceding clock signal (Fig. 7A) and (Col. 11, lines 23-61). a generator (106) may supply the sampling signals to the plurality of sampling with different head positions of the second sampling periods in the sampling signals, . This insures that the pixels connected to each of the scan signal lines can be driven by a point-at-a time scanning (Fig. 16, col. 4, lines 14-42) Aoki also teaches that the image display may be driven by applying a voltage that is a difference between voltages applied to one side of the pixel, into the liquid crystal at the pixel position to invert a polarity of an electric field applied to liquid crystal (col. 5, lines 7-23). Aoki further teaches that wherein said image display device is a projection type display (Fig. 28). Aoki substantially teach the above claimed limitations except for a “first signal has a reversed phase relation with second signal”. However, Uchino discloses an active matrix display device including a gate lines G arranged on rows, signal lines S arranged on columns and matrix-arranged pixels (6a, 6b,...) Of one row every horizontal period, a horizontal scan unit (2) supplies video signals to the signal lines S within one horizontal period and writes the vide signal in the selected pixels (6a, 6b,...) Of one row successively on a point basis, a shift register (2a) is provided in the horizontal scan circuit (2), and operates in accordance with a primary clock signal to successively output primary sampling pulses, a phase adjusting unit (3) performs phase adjustment of the primary sampling pulses to secondary clock signals which are the same as or different from the primary clock signals, and outputs phase-adjusted pulses which

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are the primary sampling pulses after the phase adjusting unit (3) performs the phase adjustment of the primary sampling pulses according to the secondary clock signals (Fig. 4, col. 4, lines 53-67 and col. 5, lines 1-9). Thus, it would have been obvious to one of ordinary skill in the art to combine the display device of Aoki and the display device of Uchino to provide an image display device with a simple circuit structure, capable of preventing a lowering of the image quantity due to a difference in the timing between a video signal and a sampling signal.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kubota et al., Koyama et al. and Tanaka et al. show a various type of driving circuit for image display devices with clock signals.

### ***Conclusion***

Applicant's arguments with respect to claims 1-10, 12-17, 19-23, 25-35 and 37-38 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Zamani whose telephone number is (703) 308-6414. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerepe, can be reached on (703) 305-4709.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ali Zamani

November 19, 2001



RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600